



**Written submission from
Kinectrics Inc.**

**Mémoire de
Kinectrics Inc.**

In the Matter of the

À l'égard d'

Ontario Power Generation Inc.

Ontario Power Generation Inc.

Applicability of the Darlington New Nuclear Project environmental assessment and plant parameter envelope to selected reactor technology

Applicabilité de l'évaluation environnementale et de l'enveloppe des paramètres de la centrale à la technologie de réacteur sélectionnée pour le projet de nouvelle centrale nucléaire de Darlington

Commission Public Hearing

Audience publique de la Commission

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Commission Secretariat
Canadian Nuclear Safety Commission
280 Slater Street
P.O. Box 1046, Station B
Ottawa, Ontario
K1P 5S9

Public Hearing on Applicability of the Darlington New Nuclear Project Environmental Assessment and Plant Parameter Envelope to Selected Reactor Technology

Dear Commission Secretariat,

The purpose of this letter is to express Kinectrics' support for Ontario Power Generation's (OPG's) position that the Darlington New Nuclear Project (DNNP) Environmental Assessment and Plant Parameter Envelope remain applicable to the selected reactor technology. OPG has selected GE-Hitachi's BWRX-300 as their preferred technology for this project.

Kinectrics is a proudly Canadian company committed to sustainable, long-term global growth. We provide complete life cycle management solutions to the electricity industry, working with our customers to fight climate change and save lives through clean electricity generation and medical isotope production. Our headquarters are in Etobicoke, Ontario with offices in Pickering, downtown Toronto, Bruce County, the United States, Germany, Denmark, Romania, the United Kingdom and India. We operate over 30 laboratories including CNSC-licensed nuclear facilities and employ more than 1,300 staff, 70% of whom have technical, science or engineering degrees.

Kinectrics is committed to the successful deployment of clean energy technologies, including new nuclear technologies in Canada and around the world. We share OPG's vision that a new SMR on the Darlington site would benefit all Ontarians while positioning Durham Region and Ontario as the clean energy capital of the world. Building on OPG's leadership in this area, Kinectrics is also investing in innovation to support clean energy and to tackle the effects of climate change head on. Kinectrics is supported by over 100 companies and consultants on our Approved Suppliers List. Combined with our suppliers, Kinectrics' support of OPG contributes to the employment of hundreds of high-quality, knowledge-based jobs.



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Kinectrics provides a broad range of services to OPG which contribute to the continued safe operation of the OPG stations as well as the development of new reactor facilities. For example:

- Services in the areas of design engineering and project management.
- Development and deployment of specialized tools, both manual and robotic, to inspect the reactor core and station infrastructure. These tools inspect various components and structures for signs of fatigue, wear, and/or chemical residue.
- Fuel channel fitness-for-service evaluations, and other asset management services for safety-related equipment and systems.
- Undertaking of deterministic and probabilistic safety assessments in support of the design and licensing bases for the station.
- Provision and qualification of safety-related components where the original equipment manufacturer no longer fabricates to the necessary nuclear quality assurance standards.
- Acted as OPG's Owner's Engineer (OE) in earlier stages of the DNNP. In this role, Kinectrics provided key project and technical oversight, assisted in the preparation and review of the design and safety analyses, monitored progress, and ensured that quality procedures and codes were followed.
- Supported OPG's site preparation licence renewal efforts between 2018 to 2020 through review of the licence renewal plan, and the development of an Aggregate Assessment report confirming the validity of the existing licensing basis for the new licensing period.
- Supported the preparation of Chapter 2, Site Characteristics, of the Preliminary Safety Analysis Report (PSAR) which was submitted as part of the DNNP Licence to Construct application.

In providing these services to OPG, Kinectrics' staff interface with OPG staff across their nuclear organization. This includes approximately 50 Kinectrics staff who work directly at OPG sites. Our core principle is: "No task is so important that we cannot make the effort to do it safely". Having extensive experience working closely with OPG, we can confirm they share this principle. OPG's effective management of their facilities provides a safe work environment for our staff. Kinectrics on-site staff are trained in, and adhere to, OPG's rigorous procedures in nuclear, conventional and radiation safety and environmental protection.

OPG's continuous improvement programs, directed at both OPG and vendor staff, ensure high safety standards are maintained. Evidence of OPG's continuous improvement culture is demonstrated through their commitment to self-reflection and awareness, including their frequent participation with Kinectrics in joint quality review and lessons learned meetings.



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OPG openly shares and seeks operating experience through formal industry forums such as those facilitated by CANDU Owners Group and routinely goes beyond formal forums to share project specific experience with other utilities and vendors.

With respect to protection of the environment, Kinectrics provides analytical and environmental services that support environmental assessments and monitoring programs. Through the provision of these services for OPG, we affirm they uphold their mandate to continuously monitor effluents while working to minimize environmental impacts. OPG serves a key role in protecting the environment by providing low-carbon energy to the Province of Ontario.

Kinectrics is a proud member of the Canadian Council for Aboriginal Business (CCAB), which aims to strengthen the relationship between Aboriginal and non-Aboriginal peoples, businesses, and communities. In this regard, we are pleased to work with OPG, which is also a member of the CCAB and has demonstrated a strong commitment to work towards meaningful engagement with Indigenous peoples and to further Indigenous business involvement in the supply chain. OPG created an Indigenous Opportunities Network (ION) designed to increase the number of Indigenous people working in the nuclear industry by placing them in the building trades on some of OPG's most diverse and innovative projects. OPG also prepared a Reconciliation Action Plan which functions as a road map for OPG to work in partnership with Indigenous communities, businesses, and organizations to advance reconciliation. Kinectrics shares OPG's views in this pursuit and is actively working with Indigenous businesses and Indigenous communities in the regions in which we operate.

In summary, by working closely with OPG over many years and understanding their people, programs, procedures, processes, and safety culture, Kinectrics has observed the commitment to safety and attention to detail which are applied to all OPG projects. Based on these experiences, Kinectrics is confident that OPG has undertaken a rigorous, systematic evaluation to demonstrate that the existing DNNP Environmental Assessment and Plant Parameter Envelope remains applicable given OPG's selection of the BWRX-300 design as the preferred reactor technology for this project. If you have any questions or require clarification, please do not hesitate to contact me at 416.207.6511 or david.harris@kinectrics.com.

Sincerely,

David Harris
President and CEO
Kinectrics Inc.